

ABSTRACT

A thin camera having sub-pixel resolution includes an array of micro-cameras. Each micro-camera includes a lens, a plurality of sensors of size p , and a plurality of macro-pixels of size d having a feature of size q . The feature size q smaller than p and provides a resolution for the micro-camera greater than p . The smallest feature in the micro-cameras determines the resolution of the thin camera. Each macro-pixel may have any array of m features of size q , where $q = d/m$. Additional micro-cameras may be included to increase power.